



Achieving Interoperability through Cooperation and Coordination

WT-96-86

February 26, 1999

By Hand Delivery

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Ms. Magalie R. Salas, Secretary
Federal Communications Commission
445 Twelfth Street S.W. (The Portals)
Washington, D.C. 20554

FEDERAL COMMUNICATIONS COMMISSION
WASHINGTON, D.C. 20554

Re: Response to Commission's Public Notice for Submissions for the Public Safety National Coordination Committee (rel. Jan. 29, 1999).

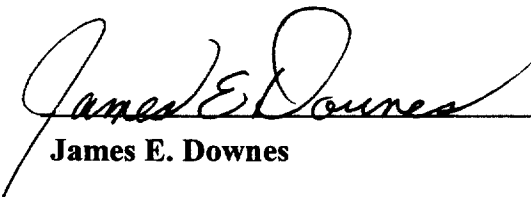
Dear Ms. Salas:

Enclosed for filing in the above-referenced proceeding is an original and four (4) copies of the Public Safety Wireless Network's submission for membership to the National Coordination Committee. This filing is in regard to the implementation of public safety communications as mandated by the Balanced Budget Act of 1997, Pub. L. No. 105-33, 111 Stat. 251 (1997) (codified at 47 U.S.C. § 337), and an accompanying Certificate of Service.

An additional copy of this filing is enclosed to be stamped "received" and returned.

Thank you very much for your attention to this matter.

Sincerely,


James E. Downes

Co-Program Manager and Chairman, Spectrum Integrated Program Team
Public Safety Wireless Network (PSWN) Program

Enclosure

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Before the
Federal Communications Commission
Washington, D.C. 20554

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FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF THE SECRETARY

In the Matter of)
The Development of Operational,)
Technical and Spectrum Requirements)
For Meeting Federal, State and Local)
Public Safety Agency Communication)
Requirements Through the Year 2010)
Establishment of Rules and Requirements)
For Priority Access Service)

WTB Docket No. 96-86

PUBLIC SAFETY WIRELESS NETWORK PROGRAM'S
SUBMISSION FOR MEMBERSHIP
TO THE NATIONAL COORDINATION COMMITTEE

1. In the Matter of the Development of Operational, Technical and Spectrum Requirements For Meeting Federal, State and Local Public Safety Agency Communications Requirements Through the Year 2010 and Establishment of Rules and Requirements For Priority Access Service, WT Docket No. 96-86, First Report and Order and Third Notice of Proposed Rulemaking, FCC 98-191 (1998) (First Report and Order), the Federal Communications Commission (Commission) called for the establishment of a Public Safety National Coordination Committee (NCC).¹ The Commission envisioned that the NCC would develop operational and technical recommendations regarding the use of the 700 MHz band designated for interoperability purposes.²

¹ See First Report and Order and Third Notice of Proposed Rulemaking, FCC 98-191 at paragraphs 90-94.

² See Id.

2. In the Public Notice issued on January 29, 1999 (the "NCC Public Notice"), the Commission requests that parties interested in becoming members of the NCC submit the name(s), and if applicable, the name(s) of the organization(s) represented wishing to serve in this capacity. The Public Notice calls for a diverse and comprehensive membership composed of all elements of the manufacturing, technology, public policy, network reliability/design, and service provider communities, including representatives with expertise in the planning and design of telecommunications networks that meet public safety and emergency responsiveness needs. The PSWN program, which herein submits information regarding its representative to the NCC, is an organization with expertise in the planning of interoperable wireless networks in support of public safety communications requirements.

3. The PSWN program³ is a federal initiative operating on behalf of all local, state, and federal public safety agencies. The Department of Justice and the Department of the Treasury are jointly leading the PSWN program's efforts to plan and foster interoperability among public safety wireless networks. The PSWN program is a 10-year National Partnership for Reinventing Government (NPRG) initiative. The NPRG, previously known as the National Performance Review, is an effort to reengineer how government provides services to citizens through more effective use of information technology and through more concerted partnership efforts among government at all levels.

4. Consistent with the NPRG, and in concert with the public safety community, the PSWN program hopes to achieve a shared vision of interoperability—seamless, coordinated, and integrated public safety communications for the safe and efficient protection of life and

³ For additional background on the PSWN program, *see* the PSWN Program Comments to the Third NPRM for Public Safety at paragraphs 3-8; *see also* the web site at www.pswn.gov.

property. The PSWN program is developing partnerships and working closely with the public safety community throughout the first five-year phase of the program to develop a comprehensive implementation plan for interoperability among wireless networks. The program is in its third year and will soon approach the halfway mark of the first phase. During the second five-year phase, the program will assist the public safety community with its implementation of interoperability in accordance with the national plan.

5. Given the PSWN program's vision, objectives, and accomplishments, it is important for the public safety community that the PSWN program has representation on the NCC. Therefore, the PSWN program respectfully submits the following representative to serve as a member of the NCC. The PSWN program submits Mr. Steven Proctor, a member of the PSWN Executive Committee⁴ and the Manager of Technical Services, State of Utah. The point of contact information for the PSWN program representative to the NCC is provided below:

Representative to the NCC

Mr. Steven Proctor
PSWN Executive Committee
Manager of Technical Services
State of Utah, Division of Information
Technology Services
State Office Building, Room 6000
Salt Lake City, UT 84114

Phone: (801) 538-3525

Fax: (801) 538-3321

⁴ The PSWN Executive Committee is a senior-level panel of local, state, and federal government officials well versed in public safety operations and communications needs. The PSWN Executive Committee provides guidance and counsel to the PSWN program managers to ensure the activities of the program are appropriate and responsive to public safety needs. Members of the PSWN Executive Committee also provide leadership on key matters related to public safety interoperability.

6. Mr. Proctor has been a member of the PSWN Executive Committee since its inauguration in 1998. In his current position, Mr. Proctor is responsible for the management and operations of all telecommunications departments, technical support services, and installations throughout the State of Utah. From 1985 to 1990, he was the Director of Public Safety Communications for Utah's microwave, radio, and dispatch networks and, from 1983 to 1985, he served as the Public Safety Telecommunications Coordinator for the State of Utah. From 1973 to 1983, Mr. Proctor was the Communications Manager for the State's Department of Transportation. Mr. Proctor has held other distinguished positions. He was chair of the State of Utah Task Force on Telecommunications where he was responsible for implementing a statewide 800 MHz radio system. He also served as President of the Association of Public-Safety Communications Officials-International (APCO).

NCC Responsibilities and PSWN Program Activities

7. In the NCC Public Notice, the Commission indicates a number of responsibilities for the NCC. These include—

- *Operational Plan to Achieve National Interoperability* - Formulate and submit for Commission review and approval an operational plan to achieve national interoperability that includes a shared or priority system among users of the interoperability spectrum (i.e., spectrum in the 700 MHz band specifically designated for interoperability use as well as spectrum in other frequency bands so designated) for both day-to-day and emergency operations and, in this connection, recommendations regarding Federal Government users' access to the interoperability spectrum;
- *Technical Standards for Interoperability and Network Integration* - Recommend technical standards to achieve full interoperability and network integration, including digital modulation, trunking, and receiver standards, network redundancy/reliability and whatever technical capabilities are found necessary to provide governments at the local, state, and federal levels with an interoperable network to meet public safety needs into the next century;

- *Recommendations for Trunking on Interoperability Spectrum* - Recommend to the Commission whether the Commission should take action to require trunking on all or a portion of the nationwide interoperability spectrum;
- *Recommendations for the Use of Interoperability Spectrum* - Formulate and submit for Commission review and approval a set of recommendations for the use of interoperability spectrum, including recommendations for Federal Government users' access, that will allow public safety licenses to make use of such spectrum until final rules are developed;
- *Policy Recommendations to Advise Regional Planning* - Provide policy recommendations on an advisory basis to the regional planning committees in order to ensure the development of coordinated regional plans; and
- *Recommendations on Other Matters Related to Deploying Interoperable Public Safety Systems* - Provide recommendations on other technology, telecommunications, and public policy matters that relate to the expedited planning and deployment of a nationwide interoperable and reliable public safety and emergency responsiveness network.

8. As is described in the paragraphs that follow, the PSWN program has explored and is continuing to investigate numerous matters related to the above listed NCC responsibilities. Findings and solutions put forward by the PSWN program directly address several of these matters. The PSWN program believes that it is vital for its actions and the actions of the NCC to be closely coordinated in order to—

- Avoid repetition of past efforts or duplication of ongoing or planned activities;
- Promote information sharing to shorten the time necessary for fact-finding;
- Allow the NCC to build upon the findings and solutions of the PSWN program; and
- Enable the NCC to accelerate its agenda and address matters in a more efficient manner.

9. *Operational Plan to Achieve National Interoperability* - The principal responsibility of the PSWN program during its first phase is to develop a National Implementation Plan for Interoperability (IPI). The National IPI will be a synthesis of the findings and solutions that PSWN program has uncovered as a result of the case studies, surveys,

analyses, and pilot projects it has conducted during its first phase. The National IPI is to provide a roadmap for implementing interoperable public safety wireless networks throughout the Nation. It will include best practices, solution options, selection criteria, and implementation aids. An interim version of the National IPI is to be issued during the upcoming program year, with enhancements to be made on an annual basis.

10. The "operational plan to achieve national interoperability" that the Commission has directed the NCC to develop sounds, in principle, quite similar to the National IPI that the PSWN program is developing. The Commission states that the operational plan should "include a shared or priority system among users of the interoperability spectrum." The development of such a system is among the solution options to be addressed in the National IPI. The PSWN program believes that rather than develop an additional plan, the NCC should work collaboratively and directly with the PSWN program through the PSWN program representative to the NCC to develop a single, unified plan and that this plan should be the National IPI.

11. The PSWN program is also preparing for its second phase, during which it will provide implementation assistance to the public safety community. The PSWN program intends to offer a suite of services to help public safety agencies apply the National IPI. Developing the National IPI collaboratively with the NCC will afford the PSWN program a unique opportunity to determine the type and scope of services it should provide during its second phase. The members of the NCC can assist the PSWN program in determining the likely demand for certain assistance services and the appropriate mix of services necessary for providing guidance. Through these efforts, the NCC can help promote the enactment of the National IPI.

12. *Technical Standards for Interoperability and Network Integration* - The PSWN program is exploring numerous technical options for realizing interoperability and network integration. It is doing so through pilot projects it is establishing in certain regions of the country, including Pittsburgh, San Diego, the Southwest border, Salt Lake City, and Washington, DC. The PSWN program conducted case studies in these regions to understand interoperability requirements and shortfalls and to baseline the existing complement of radio communications infrastructure used to support public safety agencies.

13. Based upon the results of these case studies and key differentiating regional factors, the PSWN program is designing and implementing pilot projects to feature and test different interoperability solutions. The intent of these pilot projects is to explore promising solutions, determine their advantages and shortcomings, and focus them to yield a viable set of options. The solutions, in whole or in part, may help define technical standards or standardized approaches for interoperability and network integration.

14. The NCC may wish to leverage the PSWN program pilot projects in its exploration of technical standards for interoperability and network integration. In some cases, the results of tests executed using the pilot systems may have established or debunked the viability of certain technical approaches. In other cases, they may have exposed gaps or weaknesses in proposed standards or in the degree that commercially available equipment meets established standards.

15. *Recommendations for Trunking on Interoperability Spectrum* - The PSWN program has performed an analysis of trunked and conventional architectures, including the relative advantages and disadvantages that each pose for interoperability. The NCC may wish to

consider the results of this analysis as it determines if and how trunking should be permitted or required on the interoperability spectrum.

16. Also, the PSWN program is conducting a federal pilot project in the Pittsburgh area. The pilot is to be a digital, trunked VHF system that is fully compliant with TIA/EIA-102 (Project 25) standards. The pilot is to be a collaborative, shared system to be used for test purposes by several different federal departments in the Pittsburgh area. In time, the pilot may be expanded to include interoperability with local and state systems. The evolution and findings of the Pittsburgh pilot system may prove useful to the NCC as it addresses trunking and the utility of trunking on the interoperability spectrum.

17. *Recommendations for the Use of Interoperability Spectrum* - The findings of the previously mentioned PSWN program case studies provide insights into the types of circumstances under which interoperability is required and the types of uses that are appropriate for interoperability spectrum. The PSWN program's survey of fire and Emergency Medical Services (EMS) interoperability requirements provides similar insights. Both the case studies and the results of the fire/EMS survey may provide information that the NCC may find useful as it explores possible uses of interoperability spectrum.

18. *Policy Recommendations to Advise Regional Planning* - The PSWN program conducted a study of the efficacy of public safety 800 MHz systems, including a detailed assessment of the regional planning process and the regional planning committees (RPCs) that govern this process. Members of the NCC not familiar with regional planning and the RPCs would benefit from the findings and recommendations of the PSWN program's 800 MHz study. Some of the findings and recommendations may be easily recast into policy recommendations that the NCC may wish to issue to the RPCs.

19. The PSWN program has also performed an analysis of management processes for both federal and local/state public safety spectrum. These analyses shed light on often confusing processes and place the regional planning process in the broader context of spectrum management in general. As such, they may provide additional background for NCC deliberations regarding possible regional planning policies or they may serve as primers on public safety spectrum management for those members of the NCC not well versed in these processes.

20. *Recommendations on Other Matters Related to Deploying Interoperable Public Safety Systems* - In addition to those mentioned above, the PSWN program has pursued numerous additional activities and arrived at numerous other findings and solutions. These could help the NCC arrive at recommendations on other matters related to deploying interoperable public safety systems. While several examples could be cited, attention is drawn to four: 1) regional symposiums, 2) funding studies, 3) cost analyses, and 4) commercial service assessments.

21. The PSWN program has conducted six regional symposiums throughout the Nation, a one-day mini-symposium in Washington, DC, and is planning its seventh symposium, to take place in Denver (April 13-15). These events showcase common challenges and regional solutions for achieving interoperability. The compilation of symposium findings is a rich information source and the NCC would benefit from using it.

22. The PSWN program has affirmed that insufficient funding is a major obstacle to deploying interoperable public safety systems. The PSWN program has made an assessment of funding mechanisms and found them inadequate to meet the needs of public safety. It has developed generic strategies for funding radio systems projects through their life cycles. As the

NCC addresses funding issues, as it is likely to do as a part of its deliberations, it may wish to draw from the PSWN program's existing baseline of information on this issue.

23. Complementing the PSWN program's study of funding issues was its assessment of estimated replacement costs for the existing embedded base of radio communications infrastructure. This analysis, which assumed one-for-one equipment replacement, provides a lower bound (\$18.3 billion) for the fiscal dimension of the problem. The cost estimates and the equipment inventory data collected to arrive at the cost estimates may provide useful information to the NCC.

24. The PSWN program has assessed at a high level certain types of commercial wireless services of interest to the public safety community. Commercial services may provide the means to more efficiently address non-mission critical communications requirements or to quickly provide certain services, such as data messaging, previously unavailable to public safety officials in the field. The PSWN program made a close examination of Nextel, a unique commercial service provider offering a combined cellular/Specialized Mobile Radio service. Nextel or similar commercial network implementations may prove interesting for the NCC to study as it considers interoperability issues. The PSWN program analysis of Nextel may be a useful starting point for the NCC.

Additional NCC Responsibilities

25. In its comments and reply comments to the Third NPRM for Public Safety, the PSWN program has suggested additional responsibilities for the NCC. The PSWN program

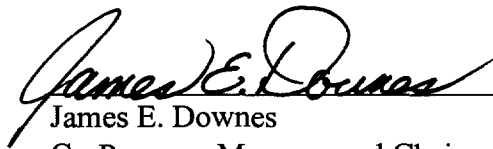
asks the Commission and, as appropriate, the NCC chair to include the following within the scope of the NCC's activities—

- Resolving region-to-region and intra-region disputes that arise under the regional planning process;⁵
- Providing national oversight to the regional planning process;⁶
- Administering the interoperability spectrum designated in the 700 MHz band;⁷ and
- Promulgating uniform guidelines for the development of interoperability/mutual aid plans.⁸

Conclusion

26. The PSWN program wishes to thank the Commission for the opportunity to provide representation to the NCC. The PSWN program adamantly believes that Mr. Steven Proctor will serve as a member who will contribute to balanced participation and who will work to ensure that the public interest is maintained.

Respectfully submitted,



James E. Downes

Co-Program Manager and Chairman, Spectrum Integrated Program Team
Public Safety Wireless Network (PSWN) Program

⁵ See the PSWN Program Comments at paragraph 12 and the PSWN Program Reply Comments at paragraph 8.

⁶ See *Id.*

⁷ See the PSWN Program Comments at paragraph 23.

⁸ See the PSWN Program Reply Comments at paragraph 13.

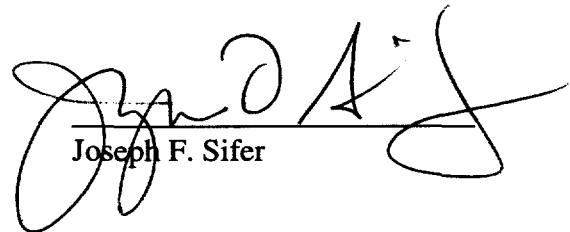
Before the
Federal Communications Commission
Washington, D.C. 20554

Certificate of Service

In the Matter of)
)
The Development of Operational, Technical,)
and Spectrum Requirements for Meeting Federal,) WT Docket No. 96-86
State, and Local Public Safety Agency Communication)
Requirements Through the Year 2010.)

I, Joseph F. Sifer, Senior Associate, 8283 Greensboro Drive, McLean, Virginia, 22102-3838, hereby certify that on February 26, 1999, I caused to be served, by first-class mail, postage prepaid (or by hand where noted) copies of the Public Safety Wireless Network program's response to the Commission's *Public Notice for Submissions for Membership to the Public Safety National Coordination Committee* (rel. Jan. 26, 1999), the original of which is filed herewith and upon the parties identified on the attached service list.

DATED at Fair Oaks, Virginia this 26th day of February, 1999.



Joseph F. Sifer

**In the Matter of
The Development of Operational, Technical
and Spectrum Requirements for Meeting Federal,
State and Local Public Safety Agency Communication
Requirements Through the Year 2010,
WT Docket No. 96-86
Service List**

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1919 M Street, N.W.-Room 814
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*The Honorable Susan Ness, Commissioner
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